IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appln No.:	10/036,910
Applicants:	Carl M. DANIELSEN et al.
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For:	VIDEO SHAPE PADDING METHOD
TC/A.U.:	2613
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2nd SUBSTITUTE APPEAL BRIEF

Sir:

Pursuant to 37 C.F.R. §1.192, the applicants hereby respectfully submit the following 2nd Substitute Brief in support of their appeal.

(1) Real Party in Interest

The real party in interest is Motorola, Inc., a Delaware corporation having a primary place of business in Schaumburg, Illinois.

(2) Related Appeals and Interferences

There are no related appeals or interferences known to appellant, the appellant's legal representative, or assignee that will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 1-18 are pending and presently stand twice and finally rejected and constitute the subject matter of this appeal. Claims 19-25 are pending and presently stand allowed.

(4) Status of Amendments

No post-final amendments have been submitted.

(5) Summary of Claimed Subject Matter

Independent claim 1 presents a method to facilitate shape padding a video object plane that is disposed within a frame boundary. This method comprises providing video object plane data that is comprised of a plurality of object pixels that each have a corresponding pixel value and a plurality of non-object pixels. A grouping of these object and non-object pixels are then selected and, for a plurality of non-object pixels within that grouping, new padding pixel values are determined, substantially simultaneously, as a function of at least one neighboring pixel value. Independent claim 12 presents a somewhat more specific method to facilitate MPEG 4 shape padding of such a video object plane that is disposed within a frame boundary. The method of claim 12 comprises providing video object plane data that comprises both a plurality of state pixels wherein each of the plurality of state pixels has a corresponding pixel value and a plurality of non-state pixels. This method then provides for selecting a macro block that comprises a grouping of the state pixels and non-state pixels and then determining, again substantially simultaneously, for each of the non-state pixels within that macro block, whether to assign new padding pixel values to the non-state pixels.

Shape padding generally serves to define pixel values for pixels that are outside the confines of a specific shape (such as an object to be displayed). Though not explicitly used as displayable content, such padded pixel values are important to facilitate other video processing steps.[1] Embodiments of the present invention permit determining in a

1 Application page 1, lines 17-20.

substantially simultaneous manner new padding pixel values for a plurality of non-object pixels within a group of pixels that contain both object pixels and non-object pixels by accounting for neighboring pixel values. By substantially simultaneously making such a determination for a plurality of non-object pixels, a relatively large number of new pixels can be determined within a single processing clock cycle.[2]

FIG. 1 from the application appears below for the convenience of the reader:

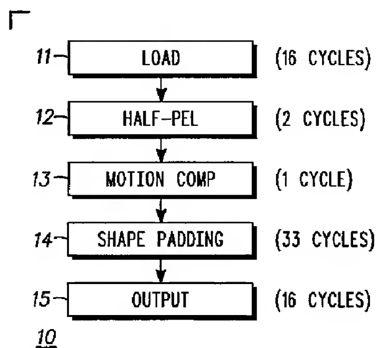


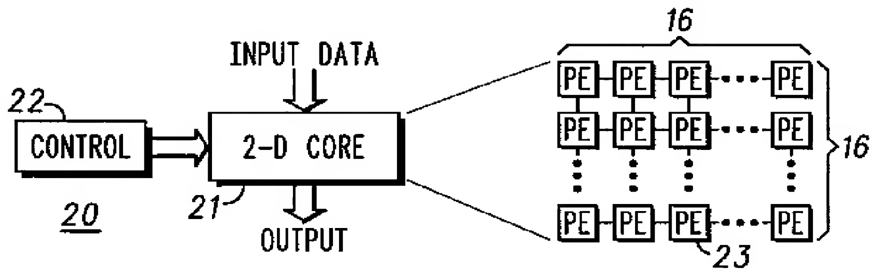
FIG. 1

Video object plane information that includes object pixels (each having a corresponding pixel value) is loaded 11. This video object plane information also includes, typically, one or more non-object pixels (the object pixels being differentiated from the non-object pixels by a discernible state condition). Half-pel calculations are effected 12 and the process then effects motion compensation 13 and shape padding 14. By these teachings both motion compensation and shape padding can be effected through use of a common array of processing elements. This process then provides 15 the resultant output for subsequent use as desired.[3]

FIG. 2 from the application appears below for the convenience of the reader:

2 Application page 3, lines 19-31.
3 Application page 4, lines 8-24.

FIG. 2



The disclosed basic architecture 20 comprises a two dimensional core 21 that is comprised of an array of individual processing elements 23[4]. In this particular illustrated embodiment, the array comprises a 16 by 16 array of such processing elements 23. Such an array can accommodate a macro block consisting of a 16 by 16 array of corresponding pixels. Control logic 22 facilitates the operation of the two dimensional core 21. Incoming data (this being the video object plane data noted above) enters the two dimensional core with motion compensated and shape padded video object plane data emerging as the output.

In these embodiments each processing element 23 will function, with each clock cycle, to assess neighboring pixel values and to establish a new padding pixel value for itself pursuant to various rules and conditions. Such a process can first effect horizontal padding and then effect vertical padding. This order reflects MPEG 4 standards. These embodiments are not limited to such an order, however.[5]

4 Details regarding an exemplary individual processing element 23 are set forth in FIG. 3 and the accompanying text.
5 Application page 7, lines 1-11 and FIG. 4.

FIG. 5 from the application appears below for the convenience of the reader:

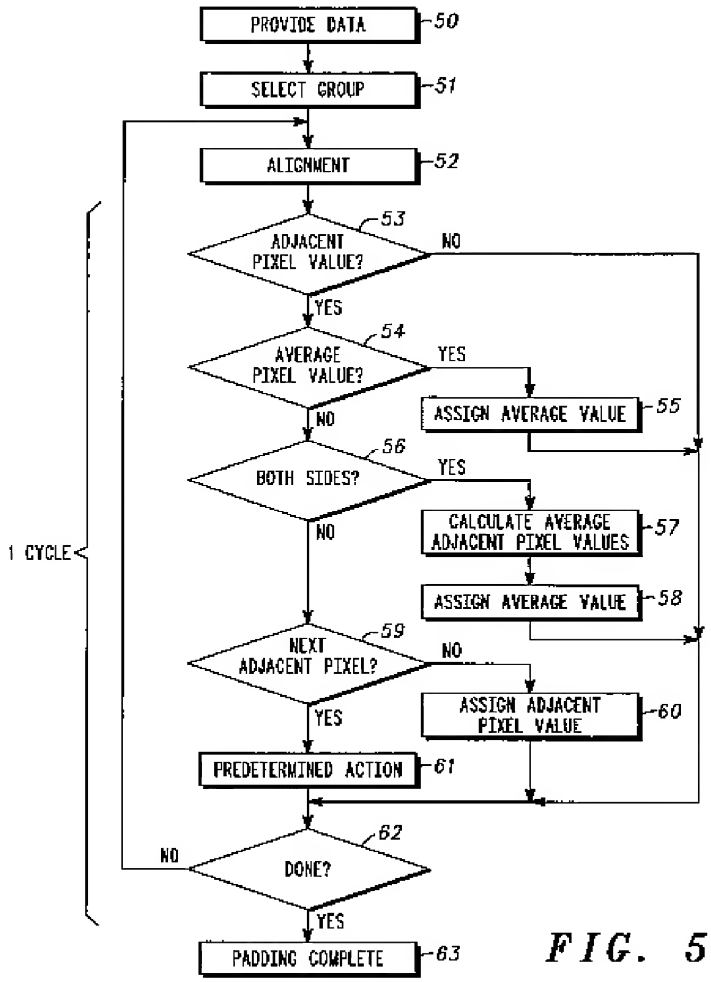


FIG. 5

Data is provided 50 and a group within this data is then selected 51. Within the context of an MPEG 4 embodiment, for example, this group would constitute a macro block. The size of the group may be as large as the array of processing elements 23. An alignment is then selected 52 (for example, horizontal processing can be selected first with vertical processing to follow).[6]

This process then functions to determine, with each cycle (i.e., "substantially simultaneously"), a new padding pixel value for each non-object pixel in the selected group.

These new padding pixel values are determined as a function of neighboring pixel values (both immediately adjacent pixel values and, in some embodiments, next adjacent neighboring pixel values).[7]

In particular, this process determines 53 whether a present non-object pixel has an adjacent pixel that is either an object pixel having a corresponding pixel value or a non-object pixel having a new padding pixel value (when aligned horizontally, only horizontally adjacent pixels are considered and when aligned vertically, only vertically adjacent pixels are considered). If not, the process concludes for this cycle. In this event, a new padding pixel value is not adopted for the present non-object pixel.[8] When the present non-object pixel does have an adjacent pixel value, the process determines 54 whether that pixel value comprises a new padding pixel value that represents an average pixel value. When true, the present non-object pixel will be assigned 55 the average value of that adjacent pixel, hence propagating that average value.[9]

When the adjacent pixel value does not constitute an average pixel value, the process determines 56 whether adjacent pixels on both sides of the present non-object pixel comprise either an object pixel having a corresponding pixel value or a non-object pixel having a new padding pixel value. When true, the process will calculate 57 an average of those adjacent pixel values and assign 58 that average value as a new padding pixel value for the present non-object pixel.[10] When the present non-object pixel has an adjacent relevant pixel value immediately on only one side thereof, the process determines 59 whether a next adjacent pixel opposite the adjacent object or padding pixel comprises either an object pixel having a

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6 Application page 7, lines 12-23.
7 Application page 7, lines 24-28.
8 With reference to FIG. 7, in an initial starting condition 71, a non-object pixel represented by reference numeral 79 does not have any horizontally adjacent pixels that meet this criteria. Consequently, this particular pixel 79 remains without a new padding pixel value as shown in the second block 72 following one cycle of the process.
9 Application page 7, line 29-page 8, line 14.
10 For example, and referring to FIG. 7, the second block 72 has a pixel represented by reference numeral 78 that has horizontally adjacent pixel values on either side thereof (on the left side is a non-object pixel having a new padding pixel value of 11 and on the right side is a non-object pixel having a new padding pixel value of 21). The process calculates an average of 16 for these two pixel values and assigns this average value of 16 for this pixel 78 as depicted in the third block 73.

corresponding pixel value or a non-object pixel having a new padding pixel value. When such is not the case, the process will assign 60 the pixel value of the adjacent pixel as a new padding pixel value for the present non-object pixel.[11] [12]

When, however, a relevant next adjacent pixel does comprise either an object pixel having a corresponding pixel value or a non-object pixel having a new padding pixel value, a predetermined action 61 will be taken. In the embodiment depicted above, this predetermined action 61 will comprise not presently assigning a padding pixel value to the present non-object pixel.[13] [14]

This process eventually concludes when finished 62. In one embodiment, this can be accomplished by simply counting the number of times the above process has iterated and comparing that count against a predetermined value. For example, with a 16 by 16 array, 33 clock cycles are the most that would be required to fully pad the complete array with appropriate padding values. Therefore, by simply allowing the process to iterate 33 times the process can be assured of being done. In another embodiment, the process could test for a conclusion. For example, by one simple approach, a comparison could be made as between each cycle to identify when the pixel values have reached a static condition. Upon reaching a static condition, the process could again conclude that the padding was complete 63.[15]

The steps set forth above serve to illustrate the rules that govern the functionality of a given processing element 23 and the two dimensional core described above. Importantly, however, the reader should keep in mind that the decision making steps set forth in FIG. 5 are, in fact, accomplished in a single clock cycle. Multiple processing elements 23 of course

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11 For example, and referring to FIG. 7, the starting condition block 71 has a non-object pixel 77 that is adjacent on its left side to an object pixel having a pixel value of 24. Since there are no relevant pixel values on the opposing side of this pixel 77, this pixel 77 is assigned the pixel value of 24 as its new padding pixel value as shown in the second block 72 depiction.
12 Application page 8, line 15-page 9, line 13.
13 With reference to FIG. 9, a present non-object pixel 82 will not be assigned a padding pixel value when the pixel 83 adjacent to the right will be assigned a new padding pixel value of 15. During the next cycle, the present non-object pixel 82 will be assigned a new padding pixel value of 10 (which constitutes the calculated average of the pixel values for the adjacent pixels 81 and 83 on either side of the present non-object pixel 82). With the next cycle, this average value will be propagated into the next adjacent non-object pixel space 83.
14 Application page 9, lines 14-28.
15 Application page 10, lines 13-24.

permit multiple pixel elements to be processed substantially simultaneously within that same single clock cycle. Multiple iterations requiring multiple clock cycles may be ultimately required to process a complete set of data, but the total number of required clock cycles remains relatively low due to this substantially simultaneous determination of new padding pixel values as a function of neighboring pixel values for a plurality of non-object pixels within a selected grouping.[16]

(6) Grounds of Rejection to be Reviewed on Appeal

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) given Takahashi et al. (U.S. Patent No. 6,078,694) ("Takahaski"). Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) given Kimoto (U.S. Patent No. 6,665,340) ("Kimoto"). Claims 10-11 and 13-18 are rejected under 35 U.S.C. 103(a) given Kimoto in view of Ito et al. (U.S. Patent No. 6,377,309) ("Ito"). The applicant disputes these rejections.

(7) Argument

Rejections under 35 U.S.C. 102(b)

Claims 1 and 12

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) given Takahashi. Takahashi discloses a method, apparatus, and apparatus relating to image signal padding, image signal coding, and image signal decoding, respectively. Takahashi provides a relatively detailed set of teachings in this regard that comprise over 21 columns of descriptive text and 23 drawings (with many of the latter comprising multi-image illustrations). Notwithstanding the numerous concepts and alternatives presented by Takahashi, however, Takahashi offers no specific instruction or suggested hint that his image padding steps for a plurality of new padding values should or could occur in a substantially simultaneous manner. Instead, Takahashi teaches only that serial/seriatim processing be employed for such purposes.

16 Application page 11, line 28-page 12, line 11.

More particularly, Takahashi teaches only that new padding values be determined, one at a time, one after the other, until all padding values are fully calculated. Takahashi therefore essentially accords with the prior art that has already been acknowledged by the applicant in the Background section of the applicant's patent application. One can speed up such a calculating process by increasing the available computational clock speed but the overall process is still utterly dependent upon a need to spend one (or more) clock cycles per padding value determination as these determinations occur in a non-parallel, *not* substantially simultaneous manner. Viewed another way, each determination occurs in a separate non-overlapping window of time because each determination occurs separately in time from any other corresponding padding value calculation.

Claim 1

Claim 1 requires "selecting a group of the object pixels and non-object pixels" and "for a plurality of non-object pixels within the grouping, determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value." The applicant's claimed approach of determining new padding pixel values for a plurality of non-object pixels within a selected group of pixels in a substantially simultaneous manner is clearly different from the approach taken by Takahashi. The word "simultaneous" means "at the same time" while "substantially" means "considerable in importance, value, degree, amount or property."[17] These words are a way of clearly reflecting the parallel processing of multiple pixel values as disclosed by the applicant and as versus a seriatim-based process.

The applicant discloses various embodiments to effect such parallel processing and has therefore elected claim language that is broader than the specific embodiments shown. That said, however, the words of the claims are not utterly bereft of any meaning as might be conceivably conveniently attributed to them. In a recent *en banc* opinion, the Court of Appeals for the Federal Circuit established the following rules to properly construe the terms of a claim. *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). The words of a claim "are generally given their ordinary and customary meaning." The ordinary and customary

meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.,* as of the effective date of the patent application.

In some cases, the ordinary meaning of the claim language as understood by a person of skill in the art may be readily apparent even to a lay observer, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. In such circumstances, general purpose dictionaries may be helpful. In other cases, however, determining the ordinary and customary meaning of the claim can require examination of terms that have a particular meaning in a field of art.

Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms distinctive to a particular art, the claim interpreter shall look to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean. Those sources include the words of the claims themselves as well as the remainder of the specification. Further, when there are two reasonable interpretations of a claim term, one should ordinarily adopt the narrower interpretation. *See, e.g., Digital Biometrics,* 149 F.3d at 1344; *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.,* 93 F.3d 1572, 1581 (Fed. Cir. 1996); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.,* 73 F.3d 1573, 1581 (Fed. Cir. 1996).

The Examiner's position appears to be that, as Takahashi's padding value determinations can occur relatively close to one another in absolute time, such calculations can therefore be viewed as being "substantially simultaneous" to one another. Such an interpretation, however, ignores a more ordinary understanding of the words "substantially simultaneous" and clearly constitutes an analysis that ignores any context as is provided by the specification. In particular, the applicant has acknowledged that seriatim processing comprises the relevant prior art and has disclosed parallel processing of a plurality of new padding values for a plurality of non-object pixels as being contrary to such an approach.

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17 See, for example, *The American Heritage Dictionary of the English Language* (1969).

The applicant has also most specifically cast the expression "substantially simultaneous" in the specification in a manner that clearly differentiates this expression from non-parallel seriatim processing as practiced in the prior art by practitioners such as Takashasi. As one example, the application makes this representation:

> By *substantially simultaneously* making this determination for a plurality of non-object pixels, a large number of new pixel values can be determined *within a single clock cycle.*[18]

The applicant has tied the notion of being "substantially simultaneous" with a specific relevant time frame – a single clock cycle. The applicant has been utterly consistent throughout the specification in this regard and with all of the articulated embodiments sharing this capability.

The applicant therefore respectfully submits that, contrary to the Examiner's suggestion, the claim language in claim 1 requiring substantially simultaneous determination of new padding pixel values for a plurality of non-object pixels is completely different from Takahashi's seriatim determination of new padding pixel values regardless of how quickly one might accomplish such one-after-another determinations. Takahashi therefore fails to anticipate the recitations of claim 1 and may be passed to allowance.

Claim 12

Essentially the same arguments apply to independent claim 12. Claim 12 requires "selecting a macro block comprising a grouping the state pixels and non-state pixels" and "for each of the non-state pixels, determining, *substantially simultaneously*, whether to assign a new padding pixel value to the non-state pixel.[19]" As Takahashi only presents teachings with respect to a series of one-after-another clock-cycle-after-clock-cycle padding pixel value determination steps, Takahashi cannot be said to anticipate such claim limitations when correctly interpreted in view of the specification.

18 Application at page 3, lines 27-30 with emphasis provided.
19 Emphasis provided.

Rejections under 35 U.S.C. 102(e)

Claims 1-9 and 12

Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) given Kimoto. Kimoto, however, again fails to make any suggestion with respect to processing new padding values other than via a one-by-one one-after-another series of processing steps that requires multiple clock cycles to process any plurality of pixels (and again notwithstanding a detailed specification that includes 15 illustrations and over 10 columns of text that purport to present at least four embodiments). The applicant therefore respectfully submits that all of the points raised above with respect to Takahashi are relevant here as well. Those points will not be repeated here, however, for the sake of brevity.

Rejections under 35 U.S.C. 103(a)

Claims 10-11 and 13-18

Claims 10-11 and 13-18 are rejected under 35 U.S.C. 103(a) given Kimoto in view of Ito. These claims are ultimately dependent upon one of claims 1 and 12, which claims have been shown to be allowable above over Kimoto. The Ito reference brings nothing to the table that would motivate a skilled artisan to modify Kimoto in a way that would permit "substantially simultaneous" determination of new padding values for a plurality of non-object pixel values. The applicant therefore respectfully submits that these dependent claims may be allowed on that basis. The applicant will also note for the record that these claims further introduce additional limitations that, particularly when considered in context with the claim(s) from which they depend, constitutes incremental patentable subject matter. For the sake of brevity however, for the moment the applicant is content to rely upon the positions already set forth above.

The applicant respectfully submits that claims 1 through 18 are allowable over the references of record and respectfully requests a corresponding ruling.

(8) Claims Appendix

1. (Original) A method for facilitating shape padding a video object plane disposed within a frame boundary comprising:

- providing video object plane data comprised of:
  - a plurality of object pixels wherein each of the plurality of object pixels has a corresponding pixel value;
  - a plurality of non-object pixels;
- selecting a grouping of the object pixels and non-object pixels;
- for a plurality of non-object pixels within the grouping, determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value.

2. (Original) The method of claim 1 wherein at least some of the non-object pixels are surrounded by object pixels.

3. (Original) The method of claim 1 wherein at least some of the non-object pixels are surrounded on at least three sides by object pixels.

4. (Original) The method of claim 1 wherein determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value includes determining, substantially simultaneously, a new padding pixel value as a function of at least a horizontally disposed neighboring pixel value.

5. (Original) The method of claim 1 wherein determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value includes determining, substantially simultaneously, a new padding pixel value as a function of at least a vertically disposed neighboring pixel value.

6. (Original) The method of claim 1 wherein determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value includes

determining, substantially simultaneously, a new padding pixel value that is equal to the neighboring pixel value when the neighboring pixel value corresponds to an object pixel.

7. (Original) The method of claim 6 wherein determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value further includes determining, substantially simultaneously, a new padding pixel value that is equal to an average of new padding pixel values as previously determined for opposing but neighboring pixel values.

8. (Original) The method of claim 1 wherein determining, substantially simultaneously, a new padding pixel value as a function of at least a neighboring pixel value includes determining, substantially simultaneously, a new padding pixel value that is equal to the neighboring pixel value when the neighboring pixel value corresponds to a new padding average pixel value.

9. (Original) The method of claim 1 and further comprising motion compensating the plurality of object pixels prior to determining new padding pixel values.

10. (Original) The method of claim 1 wherein selecting a grouping of the object pixels and non-object pixels includes loading pixel values that correspond to the grouping of object pixels and non-object pixels into an array of processing elements.

11. (Original) The method of claim 10 and further comprising motion compensating the pixel values as loaded into the array of processing elements.

12. (Original) A method for facilitating MPEG 4 shape padding of a video object plane disposed within a frame boundary comprising:
- providing video object plane data comprised of:
    - a plurality of state pixels wherein each of the plurality of state pixels has a

corresponding pixel value;

- a plurality of non-state pixels;

- selecting a macro block comprising a grouping of the state pixels and non-state pixels;
- for each of the non-state pixels, determining, substantially simultaneously, whether to assign a new padding pixel value to the non-state pixel.

13. (Original) The method of claim 10 wherein determining, substantially simultaneously, whether to assign a new padding pixel value to the non-state pixel includes determining whether to assign a new padding pixel value to the non-state pixel as a function, at least in part, of padding pixel values of neighboring pixels.

14. (Original) The method of claim 13 wherein determining whether to assign a new padding pixel value to the non-state pixel as a function, at least in part, of padding pixel values of neighboring pixels includes determining whether to assign a new padding pixel value to the non-state pixel as a function, at least in part, of padding pixel values of horizontally neighboring pixels.

15. (Original) The method of claim 14 and further comprising repeatedly determining whether to assign a new padding pixel value to the non-state pixels as a function, at least in part, of padding pixel values of horizontally neighboring pixels until all non-state pixels have an appropriate horizontally assigned new padding pixel value.

16. (Original) The method of claim 15 wherein repeatedly determining whether to assign a new padding pixel value to the non-state pixels as a function, at least in part, of padding pixel values of horizontally neighboring pixels until all non-state pixels have an appropriate horizontally assigned new padding pixel value includes detecting when all non-state pixels have an appropriate horizontally assigned new padding pixel value.

17. (Original) The method of claim 15 wherein repeatedly determining whether to assign a new padding pixel value to the non-state pixels comprises repeatedly determining whether to assign a new padding pixel value to the non-state pixels a predetermined number of repetitions.

18. (Original) The method of claim 17 and further comprising, following horizontal assignment of new padding pixel values, for each non-state pixel not having a horizontally assigned new padding pixel value, determining, substantially simultaneously, whether to assign a new padding pixel value to the non-state pixel as a function, at least in part, of padding pixel values of vertically neighboring pixels.

19. (Original) A method for facilitating shape padding of a video object plane disposed within a frame boundary comprising:
- providing video object plane data comprised of:
  - a plurality of state pixels wherein each of the plurality of state pixels has a corresponding pixel value;
  - a plurality of non-state pixels;
- selecting a grouping of the state pixels and non-state pixels;
- for each of the non-state pixels, within a single action cycle and as repeated at least until done:
  - assigning a padding pixel value that is equal to the pixel value for a first horizontally adjacent pixel having a pixel value that corresponds to either of a state pixel or a new padding pixel value, unless:
    - a second horizontally adjacent pixel located on an opposite side of the non-state pixel from the first horizontally adjacent pixel has a pixel value that corresponds to either a state pixel or a new padding pixel value, in which case the non-state pixel is assigned a padding pixel value representing an average of the pixel value for the first horizontally adjacent pixel and the second horizontally adjacent pixel;
    - a second horizontally adjacent pixel located on a first predetermined side of the non-

state pixel and on an opposite side of the non-state pixel from the first horizontally adjacent pixel has a pixel value that is neither a pixel value for a state pixel nor a new padding pixel value, and another horizontally aligned pixel is located adjacent to the second horizontally adjacent pixel and on an opposite side of the second horizontally adjacent pixel from the non-state pixel wherein the another horizontally aligned pixel has a pixel value representing either a state pixel or a new padding pixel value, in which case a first predetermined action is taken;

- for each of the non-state pixels not yet assigned a padding pixel value, within a single action cycle and as repeated at least until done:

 - assigning a padding pixel value that is equal to the pixel value for a first vertically adjacent pixel having a pixel value that corresponds to either of a state pixel or a new padding pixel value, unless:

   -a second vertically adjacent pixel located on an opposite side of the non-state pixel from the first vertically adjacent pixel has a pixel value that corresponds to either a state pixel or a new padding pixel value, in which case the non-state pixel is assigned a padding pixel value representing an average of the pixel value for the first vertically adjacent pixel and the second vertically adjacent pixel;

   - a second vertically adjacent pixel located on a first predetermined side of the non-state pixel and on an opposite side of the non-state pixel from the first vertically adjacent pixel has a pixel value that is neither a pixel value for a state pixel nor a new padding pixel value, and another vertically aligned pixel is located adjacent to the second vertically adjacent pixel and on an opposite side of the second vertically adjacent pixel from the non-state pixel wherein the another vertically aligned pixel has a pixel value representing either a state pixel or a new padding pixel value, in which case a second predetermined action is taken;

   - the non-state pixel is vertically adjacent to a pixel having a padding pixel value that represents an average pixel value, in which case the non-state pixel is assigned the padding pixel value that represents an average pixel value.

20. (Original) The method of claim 19 wherein:
- the first predetermined action includes assigning the non-state pixel a padding pixel value representing an average of the pixel value for the first horizontally adjacent pixel and the another horizontally aligned pixel; and
- the second predetermined action includes assigning the non-state pixel a padding pixel value representing an average of the pixel value for the first vertically adjacent pixel and the another vertically aligned pixel.

21. (Original) The method of claim 19 wherein:
- the first predetermined action includes not presently assigning the non-state pixel a padding pixel value; and
- the second predetermined action includes not assigning the non-state pixel a padding pixel value.

22. (Original) The method of claim 19 wherein:
- the first predetermined action includes assigning the non-state pixel an intermediary padding pixel value; and
- the second predetermined action includes assigning the non-state pixel an intermediary padding pixel value.

23. (Original) The method of claim 19 wherein selecting a grouping of the state pixels and non-state pixels includes loading pixel values that correspond to the grouping of state pixels and non-state pixels into an array of processing elements.

24. (Original) The method of claim 23 and further comprising motion compensating the pixel values as loaded into the array of processing elements.

25. (Original) The method of claim 24 wherein loading pixel values that correspond to the grouping of state pixels and non-state pixels into an array of processing elements includes

loading pixel elements that correspond to the grouping of state pixels and non-state pixels into a 16 by 16 array of processing elements.

(9) Evidence Appendix

Not applicable.

(10) Related Proceeding Appendix

Not applicable.

Respectfully submitted,

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